CLAIMS

1. A submarine fiber optic transmission network including a single cable (1) with at least two pairs of fibers and having at each end a branching unit (6, 8), each branching unit being connected to terminal equipments (18-21, 22-25) by two cable sections (10, 12, 14, 16) each having at least two pairs of fibers, each branching unit switching the fiber pairs of the single cable to two fiber pairs of two cable sections connected to it.
2. The network of claim 1, characterized in that each terminal equipment is connected to a fiber pair, in that it has, at one end of the single cable, a multiplexer (30) connected by one fiber pair (32, 33) to a terminal equipment (18) of one cable section (10) and by another fiber pair (34, 35) to a terminal equipment (21) of the other cable section (12).
3. The network of claim 2, characterized in that the multiplexer has four tributaries.
4. The network of claim 2 or claim 3, characterized in that the multiplexer (30) is a synchronous digital hierarchy add and drop multiplexer.
5. The network of claim 2 or claim 3, characterized in that it has, at one end of the single cable, a second multiplexer (42) connected by one fiber to another terminal equipment (19) of a cable section (10), by another fiber to a terminal equipment (21) of the other cable section (12) and by a further fiber to a tributary of said multiplexer (30).
6. The network of claim 5, characterized in that the second multiplexer (42) is a synchronous digital hierarchy add and drop multiplexer.
7. The network of claim 5 or claim 6, characterized in that it has, at one end of the single cable, a third multiplexer (46) connected by one fiber to another terminal equipment (19) of a cable section (10), by another fiber to a terminal equipment (21) of the other cable section (12) and by a further fiber to another tributary of said multiplexer (30).
8. The network of claim 7, characterized in that the third multiplexer (46) is a synchronous digital hierarchy add and drop multiplexer.
9. A transmission method for use in a network according to any of claims 2 to 8, including, at one end of the single cable:
   - sending fast recovery traffic from a tributary of the multiplexer (30) through a terminal equipment (18), a cable section (10) and a branching

unit (6) to the single cable, and

- receiving fast recovery traffic on a tributary of the multiplexer (30) from a single cable through the branching unit (6), the other cable section (12) and a terminal equipment (21).

10. The method of claim 9, including, at one end of the single cable:

- sending slow recovery traffic from a tributary of the second multiplexer (42) through the multiplexer (30), a terminal equipment (18), a cable section (10) and a branching unit (6) to the single cable, and

- receiving slow recovery traffic on a tributary of the third multiplexer (46) from the single cable through the branching unit (6), the other cable section (12), a terminal equipment (21) and the multiplexer (30).

11. The method of claim 9 or claim 10, including, in the event of an incident, at one end of the single cable:

- sending fast recovery traffic from a tributary of the multiplexer (30) through a terminal equipment (18), a cable section (10) and a branching unit (6) to the single cable, and

- receiving fast recovery traffic on a tributary of the multiplexer (30) from a single cable through the branching unit (6), the same cable section (12) and the same terminal equipment (21).

12. The method of claim 9 or claim 10, including, in the event of an incident, at one end of the single cable:

- sending slow recovery traffic from a tributary of the second multiplexer (42) through a terminal equipment (20), a cable section (12) and a branching unit (6) to the single cable, and

- receiving slow recovery traffic on a tributary of the third multiplexer (46) from the single cable through the branching unit (6), the same cable section (12) and the same terminal equipment (20).